

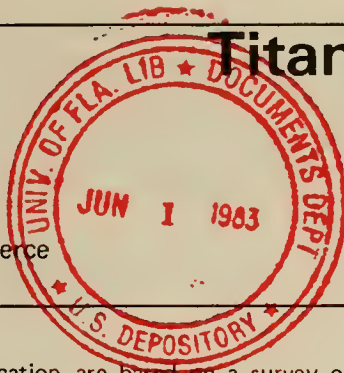
Titanium Mill Products, Ingot, and Castings

JANUARY AND FEBRUARY 1983



U.S. Department of Commerce
BUREAU OF THE CENSUS

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The statistics in this publication are based on a survey of manufacturers and represent total U.S. shipments of titanium mill products, ingot, and castings. Estimates are included for

companies whose reports were not received in time for tabulation. A description of the survey methodology and related information appears on page 4.

Table 1. NET SHIPMENTS OF TITANIUM MILL PRODUCTS

(Thousands of pounds)

Product	February 1983	January 1983	February 1982	January 1982
Total ¹	2,923	3,061	3,367	3,655
Sheet and strip.....	(2)	(2)	(2)	(2)
Plate.....				
Forging and extrusion billet.....	1,658	1,688	1,841	1,914
Rod and bar.....	294	238	421	612
Fastener stock and wire.....				
Extrusion.....	971	2,135	2,137	2,145
Pipe and tubing.....				
Other.....				

¹ Net shipments, total, is the sum of mill product shipments plus mill products consumed in the manufacture of fabricated products, less total receipts. Net shipments for each mill product category also includes the consumption of mill products in that category in the manufacture of other mill products. Detail may not add to the total because of this difference in definition.

² Data for sheet and strip, plate, extrusion (other than tubing), pipe and tubing, and other have been combined to avoid disclosing individual company data.

Table 2. TITANIUM INGOT, MILL PRODUCTS, AND CASTINGS: 1981 TO 1983

(Thousands of pounds)

Month and year	Ingot					Mill products			Castings	
	Pro- duction	Con- sumption	Ship- ments	Receipts	Ending inventories	Pro- duction	Receipts	Net ship- ments ^{1 2}	Pro- duction	Ship- ments
1983										
February.....	3,477	3,350	920	1,144	5,019	2,365	198	2,923	104	61
January.....	3,652	3,790	728	884	4,927	2,581	154	3,061	84	35
1982										
Total.....	53,072	55,161	8,492	8,670	(X)	37,221	4,789	36,562	797	521
December.....	3,034	3,014	305	633	5,068	2,366	164	2,869	74	37
November.....	3,444	4,058	595	532	4,707	2,347	177	2,501	72	40
October.....	3,598	3,829	671	534	5,386	2,357	307	2,359	52	43
September.....	3,392	3,407	846	498	5,579	2,877	379	2,994	36	36
August.....	3,877	3,676	466	589	5,884	2,339	162	2,342	60	35
July.....	3,284	3,118	528	542	5,634	2,433	144	2,382	61	35
June.....	4,017	4,631	653	588	5,411	3,188	387	3,166	64	39
May.....	3,610	4,480	456	670	3,994	3,084	357	2,946	59	45
April.....	5,001	5,204	769	806	6,405	3,209	353	3,436	69	54
March.....	6,858	7,320	867	1,071	6,552	4,361	704	4,454	90	59
February.....	6,505	6,202	973	1,252	6,686	4,185	830	3,458	83	55
January.....	6,452	6,222	1,363	955	6,523	4,475	825	3,655	77	43
1981.....	(NA)	(NA)	(NA)	(NA)	(NA)	58,940	9,084	50,983	675	417

(NA) Not available. (X) Not applicable.

¹ See table 1 for more detailed data.

² Net shipments, total, is the sum of mill product shipments plus mill products consumed in the manufacture of fabricated products, less total receipts. Net shipments for each mill product category also includes the consumption of mill products in that category in the manufacture of other mill products. Detail does not add to the total of this difference in definition.

Address inquiries concerning these figures to the U.S. Department of Commerce, Bureau of Industrial Economics, Materials Division, Washington, D.C. 20230, or to the Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Nathaniel Shelton, (301) 763-2529.

For sale by Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price, \$1.00 per copy, \$13.50 per year.

Table 3. NET SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF TITANIUM MILL PRODUCTS: 1981 TO 1983

(Quantity in thousands of pounds; value in thousands of dollars)

Month and year	Manufac- turers' net shipments (quantity)	Exports of domestic merchandise ²			Percent exports to manufac- turers' net shipments (quantity)	Imports for consumption ^{1 4}		Apparent consump- tion ⁶ (quantity)	Percent imports to apparent consumption (quantity)
		Quantity	Value at port	Estimated producers' value ³		Quantity	Value ⁵		
FEBRUARY 1983									
Total	3,843	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Titanium ingot and forging and extrusion billet.....	2,578	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Titanium mill products.....	1,265	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
JANUARY 1983									
Total	3,789	282	3,728	3,628	7	106	1,107	3,613	3
Titanium ingot and forging and extrusion billet ⁷	2,416	212	2,497	2,430	9	6	85	2,210	(2)
Titanium mill products.....	1,373	70	1,231	1,198	5	100	1,022	1,403	7
1982									
Total.....	47,021	7,200	100,606	97,901	15	2,166	22,269	41,987	5
Titanium ingot and forging and extrusion billet ⁷	28,041	4,392	60,239	58,618	16	426	3,976	24,075	2
Titanium mill products.....	18,980	2,808	40,367	39,283	15	1,740	18,293	17,912	8
1981									
Total.....	(NA)	12,098	159,454	155,165	(NA)	2,719	27,234	(NA)	(NA)
Titanium ingot and forging and extrusion billet ⁷	(NA)	8,405	105,647	102,805	(NA)	488	5,221	(NA)	(NA)
Titanium mill products.....	27,303	3,693	53,807	52,360	13	2,231	22,013	25,841	

(NA) Not available. (Z) Less than one-half of 1 percent.

¹ For a comparison of Standard Industrial Classification (SIC) codes, export (Schedule B) numbers, and import (TSUSA) numbers, see table 4.² Source: Bureau of the Census report EM 546, U.S. Exports.³ These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1980 which are published in Origin of Exports of Manufactured Products, M80(AS)-6, appendix B. Comparable adjustment factors for earlier years are based on similar factors developed for 1971 and 1972. The current adjustment factor for this report is 0.9731.⁴ Source: Bureau of the Census report IM 145-X, U.S. Imports for Consumption and General Imports.⁵ The value includes c.i.f. (cost, insurance, and freight) at the first port of entry in the United States plus U.S. import duties and other charges to the import point.⁶ Apparent consumption is derived by subtracting exports from the total of net shipments plus imports.⁷ Comparability of output, export, and import classifications for ingot and billet assume that bloom, sheet bar, and slab are reported as ingot or billet in the output numbers. Figures for imports of ingot and billet also include powder, crystal, and similar forms which are excluded from the output and export numbers.

Table 4. COMPARISON OF STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES, SCHEDULE B EXPORT NUMBERS, AND TSUSA IMPORT NUMBERS: 1983

Product code	Description	Export number	Description	Import number	Description
33562 74 ¹	Titanium ingots and forgings and extrusion billet.....	630.6520	Titanium ingots, billets, blooms, sheet bar and slabs	² 629.1460	Unwrought titanium
33562 79	Titanium mill products.....	630.6570	Wrought titanium metal, including alloys (excludes sponge, ingots, billets, blooms, sheet bars, slabs, waste, and scrap)	629.2000	Wrought titanium metal, including alloys (excludes waste, scrap, and unwrought metal)

¹Comparability of output, export, and import classification for ingot and billet assume that bloom, sheet bar, and slab are reported as ingot or billet in the output codes.

²Figures for imports of ingot and billet also include powder, crystals, and similar primary forms which are excluded from the output and export codes.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers companies engaged in producing titanium ingot, mill products, and castings.

Survey Methodology—The statistics in this publication are collected by mail on Bureau of the Census monthly Form ITA-991, Titanium Metal. The panel for this survey includes all known producers of titanium ingot, mill products, and castings, approximately 30 companies.

Survey Error—Figures for the current month include estimates for panel members for which reports were not received in time for tabulation. Such missing figures are "imputed" based on month-to-month movements shown by reporting firms. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements. The probable range of difference between the actual and imputed figures is not precisely known but is assumed to be small. The degree of uncertainty regarding the accuracy of the published data, however, increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including the receipt of late reports for which estimates were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

EXPLANATION OF TERMS

Gross Shipments of Mill Products—Represents mill shapes shipped between producers plus mill shapes consumed in the production of fabricated products such as forgings.

Net Shipments of Mill Products—Represents gross shipments less receipts. For detail categories, net shipments also include consumption in the manufacture of other mill shapes.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; on the other hand, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity

classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to the problems mentioned above, there are also the following problems affecting the comparability of the three sets of data.

Valuation—There are different methods of valuation for the three types of data:

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.

Imports—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

Duplication in Quantity and Value of Output—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

Estimated Low-Valued Export and Import Transactions—The import statistics include estimated value data for shipments valued under \$251. Effective August 1982, value data for shipments valued under \$251 are estimated from factors based on the ratios of under \$251 shipments to individual country totals. Prior to August 1982, estimates were based on a 1-percent sample of documents for shipments valued under \$251. Effective with the statistics for March 1979, the lower limit of the value ranges for estimating data for low-value export shipments was raised from \$251 to \$501. Effective July 1981, the statistics for countries other than Canada reflect fully compiled data for shipments valued over \$500. Prior to July 1981, these data were fully compiled only for shipments valued \$1,000 and over, while shipments valued \$501 to \$999 were estimated, based on a 50 percent sample.

Manufacturers' Shipments, Not Specified by Kind—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

Time Lag Between Output and Exports—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

"Direct" vs "Total" Commodity Exports and Imports—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

Used Commodities—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

Geographic Area of Coverage—Import and export data reflect the movement of merchandise into and out of U.S. foreign trade zones, the U.S. Virgin Islands, and the U.S. customs territory (includes the 50 States, the District of Columbia, and Puerto Rico).

RELATED REPORTS

An annual Current Industrial Report also is published in this series. The annual report summarizes monthly figures and incorporates known revisions for both current and previous year. It also provides a single reference copy to replace the monthly publications.

The Bureau of the Census publishes the following related reports:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M33-2	Monthly	<i>Aluminum Ingot and Mill Products</i>

Series	Frequency	Title
M33A	Monthly	<i>Iron and Steel Castings</i>
M33E	Monthly	<i>Nonferrous Castings</i>
MA33B	Annually	<i>Steel Mill Products</i>
MA33G	Annually	<i>Magnesium Mill Products</i>

Other Industry Reports


M3-1	Monthly	<i>Manufacturers' Shipments, Inventories, and Orders</i>
(AS)	Annually	<i>Annual Survey of Manufactures (ASM)</i>
(MC)	Quinquennially	<i>Census of Manufactures</i>

Foreign Trade Reports

EM 546	Monthly	<i>U.S. Exports</i>
IM 145-X	Monthly	<i>U.S. Imports for Consumption and General Imports</i>

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report ITA991	Nathaniel Shelton	(301) 763-2529
Manufacturers' Shipments Inventories, and Orders	Kathleen Menth	(301) 763-2575
Census/ASM	Dale Gordon	(301) 763-7304
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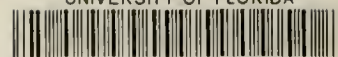
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